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10/813,557	03/31/2004	Joseph E. Paganessi	Serie 6390	4106

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Linda K. Russell
Patent Counsel
Air Liquide
2700 Post Oak Blvd., Suite 1800
Houston, TX 77056

EXAMINER	
MERKLING, MATTHEW J	

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/813,557
Filing Date: March 31, 2004
Appellant(s): PAGANESSI ET AL.

Christopher J. Cronin
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 11/17/08 appealing from the Office action mailed 4/17/08.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

US 3,256,358	Colton	6-1966
US 5,702,540	Kubota	12-1997
US 5,960,634	Hook et al.	10-1999

US 7,033,446 Poor et al. 4-2006

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Colton (US 3,256,358) in view of Kubota, (US 5,702,540).

Regarding claims 10 and 12, Colton discloses a method of generating acetylene, comprising:

generating acetylene in an acetylene generation device (see Figure) by directing at least one reactant feed stream including methane (col. 2 lines 7-16) into the acetylene generation device, wherein the acetylene generation device comprises an arc plasma reactor (col. 2 lines 7-16) including an anode and a cathode disposed within the reactor (col. 1 line 61 – col. 2 line 2), and the acetylene is generated by generating plasma within the reactor via a power supply connected to the anode and the cathode thereby yielding acetylene and hydrogen according to the formula:

$2CH_4 \rightarrow C_2H_2 + 3H_2$ (inherently by reaction of methane in a plasma reactor to produce acetylene, col. 1 lines 8-20);

While Colton discloses the production of acetylene, Colton is silent as the end use of said produced acetylene. Colton fails to teach:

directing the generated acetylene to an acetylene processing device disposed in-line and downstream from the acetylene generation device; and

operating the acetylene processing device to consume at least a portion of the acetylene,

nor does Colton teach the process device comprises a carburization device including at least one chamber to receive and process steel components, the carburization device being configured to perform a carburization process including heat treating and quenching the steel components or wherein the process device comprises a carburization device, and operation of the carburization device comprises: receiving and heat treating steel components within at least one chamber of the carburization device; introducing the generated acetylene into the at least one chamber to facilitate absorption and diffusion of carbon at the steel components.

Kubota discloses an apparatus that utilizes acetylene. In other words, Kubota discloses an end use of produced acetylene (see abstract).

Kubota teaches wherein a process device (Fig. 1) comprises a carburization device 1 including at least one chamber to receive and process steel components (Fig. 1), the carburization device being configured to perform a carburization process including heat treating and quenching the steel components or wherein the process device comprises a carburization device, and operation of the carburization device comprises (C3/L37-44) or receiving and heat treating steel components within at least one chamber of the carburization device 1 (Fig. 1, C3/L37-44); and introducing generated acetylene into the at least one chamber to facilitate absorption and diffusion of carbon at the steel components (C3/L37-44).

As such, It would have been obvious to one of ordinary skill at the time of the invention to add the acetylene processing method of Kubota to the process of acetylene

production of Colton, in order to provide an end use to the acetylene that is produced by Colton and further producing carburized steel (see col. 1 lines 11-20 of Kubota).

Claims 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over F Colton (US 3,256,358) and Kubota, (US 5,702,540) as applied to claim 10 above, and further in view of Hook et al. (US 5,960,634) as evidenced by Poor (US 7,033,446).

Regarding claims 15-18, Colton, as set forth in claim 10 above, does not go into depth as to the specific end use of the acetylene (such as with carburization, as discussed above). Moreover, Colton does not teach prior to directing the generated acetylene to an acetylene processing device and a purification device, storing the generated acetylene in at least one storage cylinder, wherein the at least one storage cylinder is disposed in-line between the acetylene generation device and the acetylene processing device and wherein the at least one storage cylinder is free of acetone.

Hook also discloses a method and apparatus for processing of acetylene (col. 2 lines 18-22). Hook teaches storing acetylene in a storage vessel (such as a cylinder) which is free of acetone (which is preferable when acetylene is used in a carburizer due to negative effects of oxygen in a carburizing processing device, see Poor, col. 6 lines 51-54) prior to utilizing the acetylene in a processing device (such as a carburizer) and also discloses a acetylene purification device (7, separates nitrogen from acetylene, col. 2 lines 25-44) prior to the processing device.

As such it would have been obvious to one of ordinary skill, to incorporate the method and apparatus for handling acetylene (as disclosed in Hook) in the generating and

supplying method of modified Colton as a preferable way of safely storing (without acetone, but also not as dangerous as pure acetylene in a cylinder) acetylene prior to utilizing the acetylene in a processing device (such as a carburizer).

(10) Response to Argument

On pages 7 and 8, Appellant argues that the combination of Colton and Kubota does not teach an acetylene processing device disposed 'in-line' and downstream from the acetylene generation device. Appellant cites the instant specification for the explicit definition of the term 'in-line', which states:

"The term 'in-line', as used herein, refers to the acetylene generation system and the acetylene processing system being combined into a single system such that acetylene is generated and then subsequently consumed..."

By this definition, it is the examiner's position that the combination of Colton and Kubota does indeed meet this definition of in-line. The definition only defines "in-line" as being part of a system. As such, combining the acetylene generation device of Colton with the acetylene processing device of Kubota would qualify as a system. There is nothing in the definition of in-line that defines what the generic term "system" is limited to.

Furthermore, Appellant goes on to argue (on the bottom of page 8) that the acetylene generated in Colton would have been stored in a tank or cylinder prior to being transported to an acetylene processing device (such as in Kubota) and therefore would not qualify as an 'in-line' system. However, while the Appellant presented a case (which was not suggested by the examiner in the rejection or in the prior art) where the acetylene generation device and the

acetylene processing device are separate (not 'in-line'), it is the examiner's position that in such a situation, one of ordinary skill in the art at the time of the invention would indeed find motivation to place the acetylene generation device and the acetylene processing device in a single system in order to eliminate the additional costs of transportation of the acetylene from one site to another. In other words, as rejected, it is the examiner's position that the combination of Colton and Kubota do define a single 'in-line' (as defined in the specification) system.

On page 10, Appellant further argues that the combination of Colton and Kubota do not teach the acetylene generation device that is 'in line' with the acetylene processing device. To look at this argument in a different light, going back to the definition 'in-line', it is the examiner's position that Appellant's definition of 'in-line' is very broad and generic. For example, from the arguments, it appears as though Appellant is arguing that because the acetylene generation device of Colton and the processing device of Kubota are not attached by a pipe line, that they do not qualify as a "single system". The examiner respectfully disagrees with this argument. To qualify as a "single system" (which is the definition provided by the Appellant's) there does not need to be a pipeline connection between the acetylene generation device and the acetylene processing device, nor do the two devices need to be placed at the same site. As an analogy, take the system that we used to dispose of waste: Waste is generated at a house hold, and then transported to a landfill or incinerator where it is 'processed'. Such a waste disposal system qualifies as a single system, yet the generation device and the processing devices are neither connected by pipeline nor are the located at the same site. In other words, 'system', as used in Appellants definition of 'in-line' is very broad and can be interpreted a number of ways.

If, on the other hand, a system is limited to only apparatuses that are connected by pipeline or are located at the same site and that the scenario presented by Appellant is utilized (where generated of acetylene is transported from a storage tank to separate site for processing), such a modification to Colton and Kubota to place the two devices at the same site would have been obvious to one of ordinary skill in the art at the time of the invention in order to eliminate transportation costs.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/M. J. M./ 2/5/09

Examiner, Art Unit 1795

Conferees:

/Alexa D. Neckel/

Supervisory Patent Examiner, Art Unit 1795

/Jennifer Michener/

QAS, TC1700